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IN THE CLAIMS:

1. (Currently Amended) A method for operating an electric motor, which motor comprises

a stator (39);

an external rotor (40), which external rotor (40) comprises a sensor magnet (54) having a plurality of sensor poles (55);

at least one rotor position sensor (42, 44), connected to the stator; and

a rotor position evaluation arrangement (100);

which method comprises the following steps:

A) generating, with the at least one rotor position sensor (100), at least one rotor position signal dependent on the rotational position of the sensor magnet (54) ~~is generated~~;

B) delivering the at least one rotor position signal ~~is delivered~~ to the rotor position evaluation arrangement (100); and

C) converting the at least one rotor position signal ~~is converted~~, in the rotor position evaluation arrangement (100), into at least one digital value having a resolution of at least two bits, with the result that the at least one rotor position signal can be converted into different digital values even at rotational positions within the angle range of one sensor pole.

2. (Currently Amended) The method according to claim 1, ~~wherein~~ further comprising generating the at least one rotor position signal ~~is generated~~ as an analog rotor position signal.

3. (Currently Amended) The method according to claim 1 ~~or 2~~, ~~wherein~~ further comprising generating the at least one rotor position signal ~~is converted~~ in the rotor position evaluation arrangement (100) into at least one digital value having a resolution of at least four bits.

4. (Currently Amended) The method according to claim 2, ~~any of the preceding claims,~~ ~~wherein~~ further comprising converting the at least one rotor position signal ~~is converted~~ in the rotor position evaluation arrangement (100) into at least one digital value having a resolution of at least eight bits.

5. (Currently Amended) The method according to claim 1, ~~any of the preceding claims,~~

~~which additionally comprises the following step:~~

~~A1) step A~~ further comprising performing said rotor position sensor signal generating step ~~is performed~~ continuously.

6. (Currently Amended) The method according to ~~any of the preceding claims~~ claim 1,

~~which additionally comprises the following step:~~

~~B1) step B is performed~~ further comprising continuously performing said rotor position signal delivering step.

7. (Currently Amended) The method according to ~~any of the preceding claims~~ claim 1,

~~which additionally comprises the following step:~~

~~C1) step C is repeated~~ further comprising repeating, at intervals in time, said rotor position signal converting step.

8. (Currently Amended) The method according to claim ~~8~~ 1, ~~which additionally comprises the following step: C2) step C is repeated~~ further comprising repeating, at fixed intervals in time, said rotor position signal converting step.

9. (Currently Amended) The method according to ~~either of~~ claim~~s~~ 7 ~~or 8~~,

~~which additionally comprises the following step:~~

~~C3)~~ further comprising converting the at least one digital value ~~is converted~~ into a value within a predetermined value range.

10. (Currently Amended) The method according to claim 9,

~~which additionally comprises the following step:~~

~~C4) for the normalization of step C3,~~ further comprising normalizing said at least one digital value by ascertaining at least one correction value ~~is ascertained~~ and ~~stored in~~ storing said correction value during a respective previous revolution of the external rotor (40).

11. (Currently Amended) The method according to claim 10, ~~which additionally comprises the following step:~~

~~C5) in step C4,~~ further comprising calculating an average of ~~the~~ a current correction value and at least one previous correction value. ~~is calculated~~.

12. (Currently Amended) The method according to claim 7, ~~any of the preceding claims,~~

~~which additionally comprises the following step: D) the~~ further comprising calculating a rotational position of the external rotor (40) ~~is calculated from~~ based upon the at least one digital value.

13. (Currently Amended) The method according to claim 12, ~~which additionally comprises the following step:~~

~~D1) in step D, the~~ further comprising

ascertaining a count ~~number~~ of periods ~~that~~ through which at least one of the rotor position signals has cycled, ~~through is ascertained by means of~~ based upon the at least one digital value.

14. (Currently Amended) The method according to claim 13, ~~which additionally comprises the following step:~~

~~D2) in step D1, the period~~ further comprising

resetting, to a predetermined value, said count of periods, ~~is reset to a predetermined value~~ after sensing of a predetermined number of periods.

15. (Currently Amended) The method according to claim 13 ~~or 14~~, ~~which additionally comprises the following step:~~

~~D3) the~~ further comprising

calculating a rotational position of the external rotor (40) ~~is calculated by means of~~ based upon the ascertained number of periods and the at least one digital value.

16. (Currently Amended) The method according to claim 12, ~~any of claims 12 through 15 for an electric motor associated with whose sensor magnet are two rotor position sensors (42, 44),~~

~~which additionally comprises the following step:~~

~~D4) in step D,~~

further comprising

obtaining rotor position output signals from two rotor position sensors, digitizing said output signals, and

using said digitized output signals in calculating ~~the digitized values of both rotor position sensors are used to calculate~~ the rotational position of the external rotor (40).

17. (Currently Amended) The method according to ~~any of~~ claim~~s~~ 12 ~~through 16,~~

~~which additionally comprises the following step:~~

further comprising

E) ascertaining the rotation speed of the external rotor ~~is ascertained~~ from the
calculated rotational position of the external rotor at a first point in time and the
calculated rotational position of the external rotor at a second point in time.

18. (Currently Amended) The method according to claim 12, ~~any of the preceding claims~~,

~~which additionally comprises the following step:~~

further comprising

F) ascertaining the rotation direction of the external rotor (40) ~~is ascertained~~ from the change over time in the at least one digital value.

19. (Currently Amended) The method according to claim 12, ~~any of the preceding claims~~

~~which additionally comprises the following step~~

further comprising:

G) upon startup of the electric motor, bringing the external rotor (40) ~~is brought~~ into a defined initial position.

20. (Currently Amended) The method according to claim 19, ~~wherein~~ further comprising:

upon startup, bringing the external rotor (40) ~~is brought~~ into the defined initial position by an energization of the stator (39).

21. (Currently Amended) An electric motor ~~that comprises~~ comprising

a stator (39);

an external rotor (40)~~, which external rotor (40) comprises~~ with a sensor magnet (54) having a plurality SP of sensor poles (55);

at least one rotor position sensor (42, 44) for generating a rotor position signal (140, 142); and

a rotor position evaluation ~~arrangement~~ apparatus (100) for generating an absolute value for the rotor position, including ~~which apparatus comprises~~ an A/D converter (144) having a resolution of at least two bits,

wherein said ~~the~~ at least one rotor position sensor (42, 44) has an output which is ~~being~~ connected to an input of the A/D converter (144).

22. (Original ~~Currently Amended~~) The electric motor according to claim 21, wherein

the at least one rotor position sensor (42, 44) is implemented as an analog rotor position sensor.

23. (Currently Amended) The electric motor according to claim 21 ~~or 22~~,

wherein the rotor position evaluation ~~arrangement~~ apparatus (100) is implemented as an absolute value sensor (100) for the rotor position, which sensor can indicate the position of the rotor at any point in time by means of an evaluation of the rotor position signal.

24. (Currently Amended) The electric motor according to ~~any of~~ claim~~s~~ 21 ~~through 23~~,

wherein the A/D converter (144) ~~having~~ has a resolution of at least four bits.

25. (Currently Amended) The electric motor according ~~any of~~ claim~~s~~ 21 ~~through 24~~, wherein the A/D converter (144) ~~having~~ has a resolution of at least eight bits.

26. (Currently Amended) The electric motor according to ~~any of~~ claim~~s~~ 21, ~~through 25, having~~
wherein a microprocessor (100) ~~that~~ constitutes at least a part of the rotor position evaluation arrangement (100).

27. (Currently Amended) The electric motor according to ~~any of~~ claim~~s~~ 21 ~~through 26~~,
wherein the at least one rotor position sensor (42, 44) is arranged on the radially inner side of the sensor magnet (54).

28. (Currently Amended) The electric motor according to ~~any of~~ claim~~s~~ 21 ~~through 27~~,
which comprises two rotor position sensors (42, 44) that are arranged at a spacing of n * 180 el. + 90° el., where n = 0, 1, 2, 3, 4, ...

29. (Currently Amended) The electric motor according to ~~any of~~ claim~~s~~ 21 ~~through 28~~,
wherein the sensor magnet ~~having~~ ~~has~~ a number SP of sensor poles greater than or equal to ten.

30. (Currently Amended) The electric motor according to ~~any of~~ claim~~s~~ 21 ~~through 28~~,
wherein the external rotor (40) comprises a sensor magnet (54) and a rotor magnet (50) interacting with the stator (39), which rotor magnet has a plurality RP of rotor poles such that RP < SP.

31. (Currently Amended) The electric motor according to claim 30,
the rotor magnet (50) having a trapezoidal magnetization.

32. (Currently Amended) The electric motor according to claim 30 ~~or 31~~,
the external rotor (40) comprising an unmagnetized region (52) between the rotor magnet (50) and the sensor magnet (54).

33. (Currently Amended) The electric motor according to ~~any of~~ claims 30 ~~through 32~~,

wherein the expression governing the number SP of sensor poles is SP = (2n - 1) * RP, where n = 1, 2, 3, 4, ...

34. (Original) The electric motor according to claim 33, where n >= 2.

35. (Original) The electric motor according to claim 33, where n >= 3.

36. (Original) The electric motor according to claim 33, where n >= 4.

37. (Currently Amended) The electric motor according to ~~any of~~ claim~~s~~ 30 ~~through 36~~, wherein

the external rotor ~~being implemented in such a way~~ is so configured that, at the angular locations at which the rotor magnet (50) exhibits a change in magnetic field direction, the sensor magnet (54) likewise exhibits a change in magnetic field direction.

38. (Currently Amended) The electric motor according to claim 37, wherein the change in magnetic field direction for both the sensor magnet (54) and the rotor magnet (50) ~~occurring~~ occurs in the same direction at those angular locations.

39. (Currently Amended) The electric motor according to ~~any of claims 30 through 38~~ claim 30, wherein

the rotor magnet (50) and sensor magnet (54) ~~being implemented~~ are formed integrally.